

1       What is claimed is:

2           1. A method of operating a peripheral data storage system for use with a host  
3       system configured to perform scheduled backup operations to the peripheral data storage  
4       system, the peripheral data storage system comprising a data storage device, a data storage  
5       system controller, a user-actuated backup signaling subsystem, a user-notifying device  
6       comprising first and second notifying states, and a data storage controller host interface  
7       adapted for communication with the host system, the method comprising:

8                  receiving a first signal from the user-actuated backup signaling subsystem;  
9                  communicating the first signal to the host system via the host interface;  
10                 receiving an acknowledgement signal from the host system in response to  
11       the communicating; and

12                 switching the user-notifying device between the first notifying state and  
13       the second notifying state in response to the received acknowledgement signal.

1           2. The method of claim 1, wherein the user-notifying device comprises a third  
2       notifying state and wherein the method further comprising:

3                  switching the user-notifying device between the first notifying state and the  
4       third notifying state following the receipt of the first signal; and

5                  switching the user-notifying device between the third notifying state and the  
6       second notifying state following the receipt of the acknowledgement signal.

1           3. The method of claim 2, wherein the user-notifying device comprises a user-  
2       visible display device having first, second and third display states, and adapted to display  
3       the first, second and third display states in the form of a first, a second and a third  
4       displaying of emitted light.

1           4. The method of claim 3, wherein the third displaying of emitted light  
2       comprises a flashing pattern.

1           5. The method of claim 1, wherein the user-notifying device comprises a user-  
2       audible audio device having first, second and third audible states, and adapted to project first,  
3       second and third audible tones corresponding to the first, second and third audible states.

1           6. The method of claim 3, wherein the user-visible display device comprises  
2       an alpha-numeric display having first, second and third display states, and adapted to

3 display the first, second and third display states in the form of a first, a second and a third  
4 displaying of alpha-numeric characters.

1       7.     The method of claim 1, wherein the host system is configured via a user-  
2 programmable scheduling software.

1       8.     The method of claim 1, further comprising:  
2              receiving a second signal from the user-actuated backup signaling subsystem;  
3              communicating the second signal to the host system via the host interface;  
4              receiving data from the host system for backing up to the data storage device  
5              in response to the communicating; and  
6              storing the received data in the data storage device.

1       9.     The method of claim 8, further comprising:  
2              acknowledging the receipt of the second signal via the user-notifying device  
3              prior to the communicating.

1       10.    The method of claim 8, wherein the communicating further comprises:  
2              receiving an acknowledgment from the host system following the receipt  
3              of the second signal; and  
4              acknowledging the receipt of the acknowledgment via the user-notifying device.

1       11.    The method of claim 8, wherein the backing up of data to the peripheral data  
2 storage system is from a host data storage system.

1       12.    The method of claim 8, wherein the backing up of data to the peripheral data  
2 storage system is from a removable data storage system adapted for communication with at  
3 least one of the host system and the peripheral data storage system.

1       13.    The method of claim 12, wherein the removable data storage system  
2 comprises a removable memory card.

1       14.    The method of claim 8, wherein the user-actuated backup signaling subsystem  
2 comprises a first electro-mechanical switch and a second electro-mechanical switch.

1       15.    The method of claim 14, wherein the first electro-mechanical switch  
2 comprises a first button adapted to receive a first user-inputted request and wherein the  
3 user-actuated backup signaling subsystem is adapted to generate the first signal based on  
4 the first user-inputted request.

1        16. The method of claim 14, wherein the second electro-mechanical switch  
2 comprises a second button adapted to receive a second user-inputted request and wherein  
3 the user-actuated backup signaling subsystem is adapted to generate the second signal  
4 based on the second user-inputted request.

1        17. The method of claim 1, wherein the data storage controller host interface is  
2 adapted for communication with the host via at least one of a universal serial bus (USB)  
3 cable and a Firewire™ cable.

1        18. The method of claim 1, wherein the peripheral data storage system  
2 comprises a disk drive system and wherein the data storage device is a disk drive.

1        19. The method of claim 1, further comprising:  
2            receiving a third signal from the user-actuated backup signaling subsystem;  
3            communicating the third signal to the host system via the host interface;  
4            transmitting data from the peripheral data storage system to the host system  
5            for restoring of data to the host system in response to the communicating; and  
6            storing the transmitted data in the host system.

1        20. The method of claim 19, wherein the peripheral data storage system  
2 comprises a third electro-mechanical switch adapted to receive a third user-inputted  
3 request and wherein the user-actuated backup signaling subsystem is adapted to generate  
4 the third signal based on the third user-inputted request

1        21. A method for performing backup operations from a host system, the back  
2 up operations corresponding to backing up of data to a peripheral data storage system in  
3 communication with the host system, the method comprising:

4              receiving in the host system a first request from the peripheral data storage  
5 system for performing a task corresponding to a host-scheduled backup operation  
6 for a scheduled backing up of data to the peripheral data storage system;

7              completing the task by the host system based on the received first request; and

8              notifying the peripheral data storage system of the completion of the task by  
9 the host system.

1        22. The method of claim 21, wherein the task comprises an enabling of the host-  
2 scheduled backup operation.

1        23. The method of claim 21, wherein the task comprises a disabling of the host-  
2 scheduled backup operation.

1        24. The method of claim 21, wherein the completing further comprises:

2              determining a state of the host-scheduled backup operation subsequent to  
3 the receipt of the first request;

4              enabling the host-scheduled backup operation if the host-scheduled backup  
5 operation is in a disabled state; else

6              disabling the host-scheduled backup operation if the host-scheduled backup  
7 operation is in an enabled state.

1        25. The method of claim 21, further comprising:

2              notifying the peripheral data storage system of the receipt of the first request  
3 prior to the completing.

1        26. The method of claim 25, wherein the notifying the peripheral data storage  
2 system of the receipt of the first request prior to the completing comprises providing a first  
3 signal to the peripheral data storage system.

1        27. The method of claim 24, wherein the notifying the peripheral data storage  
2 system of the completion of the task by the host system further comprises:

3              providing a third signal to the user by the data storage controller host  
4 interface if the scheduled backup operation is enabled.

1        28. The method of claim 24, wherein the notifying the peripheral data storage  
2 system of the completion of the task by the host system further comprises:

3                providing a fourth signal to the user by the data storage controller host  
4 interface if the scheduled backup operation is disabled.

1        29. The method of claim 21, further comprising:

2                configuring the host-scheduled backup operations in the host system prior  
3 to the receipt of the first request.

1        30. The method of claim 21, the completing further comprising:

2                determining if the host-scheduled backup operations was configured in the  
3 host system prior to the receipt of the first request; and

4                configuring in the host system the host-scheduled backup operations if the host-  
5 scheduled backup operations was not configured prior to the receipt of the first request.

1        31. The method of claim 30, wherein configuring the host-scheduled backup  
2 operations further comprises:

3                selecting the peripheral data storage system for the host-scheduled backup  
4 operations of host data in a host data storage system;

5                selecting a portion of host data for the host-scheduled backup operations of  
6 the selected portion to the selected peripheral data storage system; and

7                selecting a frequency of the host-scheduled backup operation for the  
8 selected portion of host data to the selected peripheral data storage system.

1        32. The method of claim 30, wherein the configuring the host-scheduled  
2 backup operation further comprises:

3                reconfiguring the previously configured host-scheduled backup operations  
4 subsequent to the receipt of the first request.

1        33. The method of claim 21, further comprising:

2                receiving in the host system a second request from the peripheral data  
3 storage system for performing an on-demand backing up of pre-selected data to  
4 the peripheral data storage system; and

5                transmitting the pre-selected data to the peripheral data storage system.

1        34. The method of claim 33, further comprising:

2                    notifying the peripheral data storage system of the receipt of the second  
3                    request prior to the transmitting.

1        35. The method of claim 33, further comprising:

2                    configuring the on-demand backing up of data to the peripheral data storage  
3                    system in the host system prior to the receipt of the second backup request.

1        36. The method of claim 33, the further comprising:

2                    determining if the on-demand backing up of data to the peripheral data storage  
3                    system was configured in the host system prior to the receipt of the second request; and  
4                    configuring in the host system the on-demand backing up of data to the  
5                    peripheral data storage system if the on-demand backing up of data to the peripheral  
6                    data storage system was not configured prior to the receipt of the second request.

1        37. The method of claim 36, wherein configuring the on-demand backing up  
2                    of data to the peripheral data storage system further comprises:

3                    selecting the peripheral data storage system for the on-demand backing up  
4                    of data to the selected peripheral data storage system;

5                    selecting at least one of a host data storage system and a removable data storage  
6                    system for on-demand backing up of data to the peripheral data storage system; and

7                    selecting a portion of data in the selected data storage system for on-demand  
8                    backing up of data to the selected peripheral data storage system.

1        38. The method of claim 36, wherein the configuring the on-demand backing  
2                    up of data to the peripheral data storage system further comprises:

3                    reconfiguring the previously configured on-demand backing up of data to  
4                    the peripheral data storage system subsequent to the receipt of the second request.

1        39. The method of claim 37, wherein the removable data storage system  
2                    comprises a removable memory card.

1        40. The method of claim 36, wherein the configuring further comprises  
2                    configuring the host system to create in the peripheral data storage system a different  
3                    backup version for each backing up of data from the removable data storage system.

1        41. The method of claim 34, wherein the notifying the peripheral data storage  
2                    system of the receipt of the second request further comprises providing a second signal to  
3                    the peripheral data storage system.

1           42. The method of claim 21, wherein the host system is in communication with  
2 a plurality of peripheral data storage systems each having a corresponding host-scheduled  
3 backup operation, and wherein the first request is received from a first peripheral data  
4 storage system for performing a first task corresponding to a host-scheduled backup  
5 operation for a scheduled backing up of data to the first peripheral data storage system.

1           43. The method of claim 42, further comprising:  
2                 determining the first request is received from the first peripheral data  
3 storage system.

1           44. The method of claim 43, wherein the completing further comprises:  
2                 completing the first task by the host system based on the received first request.

1           45. The method of claim 44, wherein the notifying further comprises:  
2                 notifying the first peripheral data storage system of the completion of the  
3 first task by the host system.

1           46. The method of claim 42, further comprising:  
2                 configuring each host-scheduled backup operation corresponding to each  
3 peripheral data storage system in the host system prior to the receipt of the first request.

1           47. The method of claim 46, wherein configuring each host-scheduled backup  
2 operation corresponding to each peripheral data storage system further comprises:

3                 selecting a peripheral data storage system for a host-scheduled backup  
4 operation of host data in the host data storage system;

5                 selecting a portion of the host data for the host-scheduled backup operation  
6 to backup to the selected peripheral data storage system; and

7                 selecting a frequency of the host-scheduled backup operation for backing up  
8 of the selected portion of host data to the selected peripheral data storage system.

1           48. The method of claim 33, wherein the host system is in communication with  
2 a plurality of peripheral data storage systems, and wherein the second request is received  
3 from a first peripheral data storage system for performing a first on-demand backing up of  
4 data to the first peripheral data storage system.

1           49. The method of claim 48, further comprising:  
2                 determining the second request is received from the first peripheral data  
3 storage system.

1           51. The method of claim 48, further comprising:  
2                 configuring each on-demand backing up of data corresponding to each peripheral  
3                 data storage system in the host system prior to the receipt of the second request.

1           52. The method of claim 51, wherein the configuring each on-demand backing up of  
2 data corresponding to each peripheral data storage system in the host system further comprises:

3                   selecting a peripheral data storage system for an on-demand backing up of  
4                   data to the peripheral data storage system;

5 selecting at least one of a host data storage system and a removable data storage  
6 system for backing up of data to the selected peripheral data storage system; and

7 selecting a portion of data in the selected data storage system for backing up  
8 to the selected peripheral data storage system.

53. The method of claim 21, wherein the host system comprises a primary host system in communication with a plurality of secondary host systems, and wherein the first request is received in the primary host system from the peripheral data storage system for performing a second task corresponding to a host-scheduled backup operation for a scheduled backing up of data from the primary host system and the plurality of secondary host systems to the peripheral data storage system.

1           54. The method of claim 53, further comprising:  
2                 configuring each host-scheduled backup operation corresponding to the  
3                 primary host system and each of the secondary host systems in the primary host  
4                 system prior to the receipt of the first request.

1           55. The method of claim 54, wherein configuring each host-scheduled backup  
2 operation corresponding to the primary host system and each of the secondary host  
3 systems further comprises:

- 4                   selecting a secondary host system for a host-scheduled backup operation of
- 5                   the selected secondary host system data in the host data storage system;
- 6                   selecting a portion of selected secondary host system data for the host-
- 7                   scheduled backup operation to backup to the peripheral data storage system; and

8           selecting a frequency of the host-scheduled backup operation for backing  
9       up of the selected portion of selected secondary host system data to the peripheral  
10      data storage system.

1       56.     The method of claim 32, wherein the host system comprises a primary  
2     host system in communication with a plurality of secondary host systems, and wherein  
3     the second request is received in the primary host system from the peripheral data storage  
4     system for performing an on-demand backing up of data from the primary host system  
5     and the plurality of secondary host systems to the peripheral data storage system.

1       57.     The method of claim 56, further comprising:  
2           configuring each on-demand backing up of data corresponding to the  
3     primary host system and each of the secondary host systems in the primary host  
4     system prior to the receipt of the second request.

1       58.     The method of claim 57, wherein the configuring each on-demand backing  
2     up of data corresponding to the primary host system and each of the secondary host  
3     systems in the primary host system further comprises:

4           selecting a secondary host system for on-demand backing up of data ;  
5           selecting at least one of a secondary host data storage system and a  
6     secondary removable data storage system for on-demand backing up of data to the  
7     peripheral data storage system; and  
8       selecting a portion of data in the selected secondary data storage system for on-demand  
9       backing up to the peripheral data storage system.